APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/715,374	11/19/2003	Jean-Francois Lafon	245516US41X DIV	5478

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EXAMINER
TRAN, DALENA

ART UNIT	PAPER NUMBER
3661	

DATE MAILED: 03/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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APPLICATION NO./ CONTROL NO.	FILING DATE	FIRST NAMED INVENTOR / PATENT IN REEXAMINATION	ATTORNEY DOCKET NO.
10/715,374			

EXAMINER

ART UNIT	PAPER

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Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner for Patents

	Application No.	Applicant(s)
Office Action Summary	10/715,374	LAFON ET AL.
	Examiner	**Art Unit**	
	Dalena Tran	3661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>20 December 2004</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-20</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-20</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>2/19/04, 2/20/04</u>.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Notice to Applicant(s)

1.   This office action is responsive to the amendment filed on 12/20/04. As per request,

claims 17-20 have been added. Claims 1-20 are pending.

2.   The prior art submitted on 2/19/04, and one sheet of IDS sent on 2/20/04 have been

considered. The other sheet of IDS sent on 2/20/04 has not been considered, because 2 foreign

patent documents (2677149, and 2743921) have not been received yet. Submission is required.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

4.   Claims 1-12, and 17-20, are rejected under 35 U.S.C.103(a) as being unpatentable over

Bang et al. (5,715,163) in view of Snyder et al. (6,664,989).

As per claim 1, Bang et al. disclose a dialog method for dialog between an operator of an

aircraft and at least one system of the aircraft, comprising the steps of: displaying on a display at

least one window including a plurality of responsive objects respectively associated with one of

multiple functions of the at least one system of the aircraft (see at least the abstract; and column

2, lines 53-67), and moving a cursor in a continuous manner on the display so as to designate a

responsive object (see at least column 4, lines 5-27; column 5, lines 18-32; and columns 5-6,

lines 46-5). Bang et al. do not explicitly disclose moving a cursor in a discrete manner.

However, Bang et al. disclose "a manual input cursor control device is provided which is suited

for receiving manual inputs from the flight crew to control the position of the cursor on the

navigational display" (see at least column 1, lines 59-62). It is obvious to one of ordinary skill in

the art that "a manual input" is a discrete action to control the position of the cursor on the

display. Bang et al. also disclose "a keypad for allowing the typed entry of sequential

waypoints" (see at least column 1, lines 62-65); also, "allowing the flight crew manually

selecting waypoints via the cursor control device" (see at least column 2, lines 1-3); "keypad

input" and "selecting waypoints by waypoint", it is obvious that action is a discrete input, and it

is well known that one of the function keys in the keypad can be programmed to perform a

function of controlling a moving of cursor on the display, for example, directional function keys

move up, down, right, and left. In addition, to modify for the teaching of moving the cursor in a

discrete manner of Bang et al., Snyder et al. also disclose moving the cursor in a discrete manner

on the display, responsive object by responsive object, so as to designate a responsive object (see

at least the abstract; and columns 6-7, lines 53-34). It would have been obvious to one of

ordinary skill in the art at the time the invention was made to modify the teach of Bang et al. by

combining moving a cursor in a discrete manner on the display for activating, pointing, or

selecting quickly in the display screen to provide a faster rate of viewing and selection objects in

the display.

As per claim 2, Bang et al. do not disclose a control ball on a mouse. However, Snyder

et al. disclose moving the cursor in the continuous manner on the display with a control ball on a

mouse (see at least column 3, lines 8-18). Bang et al., and Snyder et al. do not explicitly disclose

an arrow key on a keyboard. However, Snyder et al. disclose discrete movement of the cursor,

and "four buttons on CCD maybe programmed to correspond to left, right, up and down

movements (column 7, lines 61-65). It would have been well known that these four buttons on CCD could be labeled as directional cursor (arrow) keys on the keyboard. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Bang et al., by combining moving the cursor in the discrete manner on the display with an arrow key on a keyboard allow the operator to skip through plurality of screen display with convenient and faster rate.

As per claim 3, Bang et al. disclose activating a function associated with the responsive object designated by the step of moving a cursor in a continuous manner on the display (see at least column 4, lines 4-27; and column 5, lines 18-32). Bang et al. do not explicitly disclose activating a function associated with the responsive object designated by the step of moving a cursor in a discrete manner on the display. However, Snyder et al. disclose activating a function associated with the responsive object designated by the step of moving a cursor in a discrete manner on the display (see at least the abstract; and columns 6-7, lines 53-34). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Bang et al. by combining activating a function associated with the responsive object designated by the step of moving a cursor in a discrete manner on the display for providing a faster rate of viewing and selection objects in the display.

As per claim 4, Bang et al. disclose step of activating the function associated with the responsive object designated by the step of moving a cursor in a continuous manner on the display is performed with key on a mouse (see at least column 5, lines 18-32). Bang et al. do not disclose moving a cursor in a discrete manner with an Enter key on a keyboard. However, Snyder et al. disclose step of activating the function associated with the responsive object

designated by the step of moving a cursor in a discrete manner on the display is performed with a

multifunction keyboard (see at least column 3, lines 39-48). It is well known that a basic

multifunction keyboard could be programmed to include a function Enter key. It would have

been obvious to one of ordinary skill in the art at the time the invention was made to modify the

teach of Bang et al. by combining activating the function associated with the responsive object in

a continuous manner on the display with an Enter key on a keyboard for executing a command

and selection of data.

As per claim 5, Bang et al. do not disclose plurality of windows. However, Snyder et al.

disclose the at least one window includes a plurality of windows, and moving the cursor

discretely from one window to another window in the plurality of windows (see at least columns

3-4, lines 39-13). It would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify the teach of Bang et al. by combining plurality of windows to

provide multifunction communications between and operator and the aircraft system.

As per claim 6, Bang et al. do not disclose a default field. However, Snyder et al.

disclose each window is divided into a plurality of fields each including at least one responsive

object (see at least column 4, lines 32-65), and each window includes one default field on which

the cursor arrives after moving from one window to another window (see column 4, lines 13-31).

It would have been obvious to one of ordinary skill in the art at the time the invention was made

to modify the teach of Bang et al. by combining each window includes one default field for

easily to locate the cursor position and located an object being selected to view.

Also, as per claim 7, Snyder et al. disclose each default field includes one default

responsive object (see at least column 4, lines 32-65).

As per claim 8, Bang et al. do not disclose a Tab key. However, Snyder et al. disclose step of moving one window to another window is performed with a Tab key on a keyboard (see at least column 4, lines 14-31). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Bang et al. by combining moving one window to another window is performed with a Tab key on a keyboard for fast and conveniently select a desired window for viewing.

As per claims 9-10, Bang et al., and Snyder et al. do not explicitly disclose moving the cursor in the discrete manner on the display is activated during an emergency mode of the aircraft. However, Snyder et al. disclose discrete cursor movement (see at least column 7, lines 59-63), and "absolute motion" (see at least column 6, line 53). It is obvious that an absolute motion of discrete cursor movement implies a single action by the operator, and an action perform during an emergency condition, because the operator only have a very short time to activate a key in a keyboard. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Bang et al., and Snyder et al. by combining moving the cursor in the discrete manner on the display is activated during an emergency mode of the aircraft to provide an operator ability to accurately selecting a cursor location during periods of erratic vehicle moment that is easily to place the cursor in an unintended location of the display.

Also, as per claim 11, Snyder et al. disclose moving a cursor in a continuous manner on the display with a mouse (see at least column 3, lines 8-18), and moving the cursor in the discrete manner on the display with a keyboard (see at least column 3, lines 39-47).

As per claim 12, Snyder et al. disclose moving the cursor in the discrete manner on the display move the cursor discretely on the display, responsive object by responsive object, in a cyclical manner (see at least columns 6-7, lines 53-34).

As per claim 17, Bang et al. disclose a dialog method for dialog between at least one operator of an aircraft and at least one system of aircraft, comprising steps: moving a cursor on interactive window in an actuatable manner so as to designate a responsive object (see at least column 4, lines 5-27); and confirming designated responsive object either in an actuatable manner or using at least one confirmation key (see at least column 3, lines 12-40). Bang et al. do not disclose plurality of interactive windows. However, Snyder et al. disclose displaying on at least two interactive windows, each of at least two interactive windows including at least one responsive object associated with one of a plurality of functions of at least one system of aircraft, and moving cursor from window to window using an auxiliary displacement key (see at least columns 3-4, lines 39-65), and moving the cursor on interactive windows in a discrete manner, responsive object by responsive object, so as to designate a responsive object (see at least column 4, lines 13-31; columns 6-7, lines 53-35; and column 7, lines 60-65). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Bang et al. by combining plurality of windows to provide multifunction communications between and operator and the aircraft system.

Also, as per claim 18, Snyder et al. disclose moving cursor directly onto a responsive object associated with a function using a function key (see at least column 4, lines 13-65).

As per claims 19-20, Snyder et al. disclose displaying cursor at a default location in a window after moving cursor from one window to another window (see at least columns 3-4, lines 49-52).

5.   Claims 13-16, are rejected under 35 U.S.C.103(a) as being unpatentable over Bang et al. (5,715,163), and Snyder et al. (6,664,989) as applied to claim 1 above, and further in view of Muller et al. (6,072,473).

As per claim 13, Bang et al., and Snyder et al. do not disclose plurality of displays. However, Muller et al. disclose the display includes a plurality of displays, and moving the cursor from one display to another display in the plurality of displays (see column 4, line 58 to column 5, line 39; and column 6, lines 62-67). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Bang et al., and Snyder et al. by combining plurality of displays so the pilot and co-pilot in the airplane easy to view and interact with the system.

As per claim 14, Snyder et al. disclose each window includes a plurality of windows, each window is divided into a plurality of fields each including at least one responsive object (see column 4, lines 13-31), and each display includes one default field on which the cursor arrives after moving from one window to another window (see columns 3-4, lines 39-13).

As per claim 15, Snyder et al. disclose the cursor is moved from one display to another display via one of a key on a mouse and a key on a keyboard (see column 3-4, lines 39-13).

As per claim 16, Bang et al., and Snyder et al. do not disclose eight displays. However, it is obvious one can design a plurality of display for use by the pilot and the co-pilot. For example, Muller et al. disclose six displays (see column 3, line 36 to column 4, line 5), it is

obvious that screens 7-10 can used by each of the pilots, central screen 11 can common used by

each of the pilots. Therefore, it is obvious that the display can include eight displays, of which

three displays are for a pilot of the aircraft, three other displays are for the co-pilot, and two

displays are for common use by the pilot and co-pilot.

Remarks

6.   Applicant's argument filed on 12/20/04 has been fully considered. Upon updated search,

the new ground of rejection has been set forth as above.

Applicant's argue on pages 7-8 of the amendment that Bang et al. do not disclose

"moving the cursor in a discrete manner on the display, responsive object by responsive object,

so as to designate a responsive object". As discussed in item 4 above, Bang et al. do not

explicitly disclose moving a cursor in a discrete manner. However, Bang et al. disclose "a

manual input cursor control device is provided which is suited for receiving manual inputs from

the flight crew to control the position of the cursor on the navigational display" (see at least

column 1, lines 59-62). It is obvious to one of ordinary skill in the art that "a manual input" is a

discrete action to control the position of the cursor on the display. Bang et al. also disclose "a

keypad for allowing the typed entry of sequential waypoints" (see at least column 1, lines 62-65);

also, "allowing the flight crew manually selecting waypoints via the cursor control device" (see

at least column 2, lines 1-3); "keypad input" and "selecting waypoints by waypoint", it is

obvious that action is a discrete input, and it is well known that one of the function keys in the

keypad can be programmed to perform a function of controlling a moving of cursor on the

display, for example, directional function keys move up, down, right, and left. Also, to modify

for the teach of Bang et al. is the new rejection in item 4 above to combine Snyder et al.
reference for the teach of moving the cursor in a discrete manner on the display, responsive
object by responsive object, so as to designate a responsive object.

Applicant's also argue on pages 10-11 that Muller et al. do not teach moving the cursor in
a discrete manner on the display, responsive object by responsive object, so as to designate a
responsive object. However, Muller et al. reference is cited for teaching a plurality of display in
claims 13, and 16.

Houlberg (6,172,747), and Beeks (6,104,969) references are no longer used in this
rejection.

7.   Any inquiry concerning this communication or earlier communications from the
examiner should be directed to Dalena Tran whose telephone number is 703-308-8223. The
examiner can normally be reached on M-F (7:30 AM-5:30 PM), off every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's
supervisor, Thomas Black can be reached on 703-305-8233. The fax phone number for the
organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

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system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patent Examiner
Dalena Tran

March 16, 2005